



Think Piece An Opening Dialogue with Think Pieces and Feature Articles on *Learning in a Changing World* in This Journal

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The dialogue is not aimed at settling anything. We explore meaning together – the creative perception of meaning – thinking together and feeling together. But meaning is ... spontaneously active and transformative. (Bohm, 1990)

David Bohm introduced a dialogue form that begins with no set purpose beyond the intention to explore thought. He proposed that seeing thought as a reflex (just a more subtle body reflex), could help us understand its operation, not as something mystical, and separate from emotions and bodily functions, but an integral part of a material system. (Styer, 1997)

On Dialogue ...

In approaching this opening Think Piece, I spent some time critically considering the notion of thought and 'dialogue'. What would a dialogue with the other Think Pieces, the selected Feature Articles and a Viewpoint paper in this journal involve? How might such a dialogue be constituted, and *why dialogue*? This paper follows a recent reading of David Bohm's (2004) notable text *On Dialogue*. Since reading this text I have been fascinated by the way in which he, widely recognised for his contribution to quantum physics, considers reflexive thought and dialogue as important processes in global social transformation. It also follows much internal conversation and reflexive deliberation on the value and validity of organising an (expensive) World Environmental Education Congress in one of the most poverty-stricken regions in the world – southern Africa – which is also my home. Countless times I have thought about the ethical responsibility associated with the process of creating meaningful opportunity for global dialogue in a World Congress environment. What value will the Congress have? How can one create an environment conducive to *dialogue* within a global frame?

These ethical deliberations intensified over the past 18 months as global climate change rose in stature in the international media, breaking into political discourse, economic discourse and the space of personal ethical decision making. Ever conscious of the ecological footprint wrought by countless people flying to Durban for this congress in the face of recent scientific reporting on the risk and impact of global climate change on society, the task to consider the nature, quality and value of potential for meaningful dialogue at the Congress took on an even greater significance.

In this process, I drew some inspiration and methodological guidance from Bohm's extreme realism. As Senge states in the introduction to the 2004 edition of Bohm's essays: 'He knew that no society has ever faced the sort of global predicament we face, and that we are not likely to muddle through without radical changes in our way of being – together' (Senge, cited in Bohm, 2004:xiv).

In trying to conceptualise a social process that seeks global 'truth' about the state of humanity and its environmental relations, Bohm discusses the kind of relational dialogue necessary for global society to change its direction away from the incoherent, destructive bent it is currently on. The dialogical process he defines is essentially a relational process of re-learning to allow for deep-seated cultural changes. He argues that to achieve this deep-seated cultural change, dialogical processes are needed in our daily lives and work, and in society more broadly, that allow us to examine the very nature of our thought, the way in which we listen and engage with others, and that allow us to probe the not so obvious, the tacit or what he calls *the implicate order*. He proposes that if such cultural change were to take place, 'the kind of waste of energy which is going on in the production of armaments could be cut down. If we could stop the tremendous amount that's being spent on armaments – let's say a trillion dollars a year – that could be used for ecological regeneration and all sorts of constructive things' (2004:52). He does not propose an 'ideal state' but rather a process of dialogue and learning to slow down the destruction, inequalities and violence characterising late modernity and, through this, the charting of a different direction for humanity.

Methodological Guidance from On Dialogue

So what methodological guidance did I find in the Bohm essays *On Dialogue*? While his methodological suggestions are directed mostly to establishing face-to-face social processes that allow for meaningful *dialogue*, I have found some aspects of his work useful for engaging with the papers in the journal, and for thinking through issues associated with the dialogue opportunity afforded by a World Environmental Education Congress (WEEC). I will simply map some of the ideas that I found useful in the Bohm (2004) text here, to share with readers the vantage point used for interpretation in this paper.

- Dialogue does not only mean two in conversation. It comes from the Greek word '*dialogos*'. *Logos* means 'the word'. And *dia* means 'through' (p.6). In considering dialogue, we are therefore considering *a flow of meaning constituted in language through the word ...*
- A dialogue gives attention to the whole process, not just to the content of all the different thoughts, opinions and views – and to how we hold it all together. Thought, and the way we think, has a profound effect on the possible flow of meanings. For example, if we allow fragmentation (which originates in thought) to influence the way we think, certain meanings result (e.g., nature and culture are separated; education in schools and out of schools are separated; society, environment and economics are separated, etc.). Dialogue pays attention to the meanings, as well as their origins, and how the flow of meaning holds together.

- The purpose in engaging in dialogue is not necessarily to try to change anything, but rather to become more aware of what exists, of relations between things, of incoherence and new possibilities for creativity and coherence.
- The object of dialogue is not to analyse things, or to constitute or win an argument, or to exchange opinions. Rather it is to suspend all opinions (one's own and others') and to see through the word what it all means. Bohm says that 'If we can see what all our opinions mean, then we are *sharing a common content*, even if we do not agree entirely ... if we can see all the [opinions] ... we may than move more creatively in a different direction' (p.30).
- When listening to what others are saying, we need to suspend our own viewpoints, self interests and assumptions about what (we think) might be better, until we have carefully and slowly considered what others are saying. Bohm says that too often our self interests and assumptions take over and cloud what we hear, leading to defensive postures and oppositional thought, which only serve to break down the potential for meaningful dialogue.
- If we are able to think together in a coherent way (not uncritically or all in the same way), it would have tremendous power in enabling a more coherent movement of thought in society. This coherence is necessary not only at the level we recognise (the explicate order), but at the *tacit level*, at the level for which we only have a vague feeling (the implicate order). For example, at the *tacit level* in our society at the moment a monetary, profit-centred economy is simply an accepted norm that structures societies and the way they operate around the globe. Is it possible that other (differently constituted, more coherent) thoughts could become as tacitly and widely accepted? Bohm explains that the tacit is often the unspoken, taken-for-granted dimension of culture, so if we can be more alert to and reflexive of the flow of meaning at the tacit level, then maybe thought can change. He explains how tacit coherence has gradually fragmented and become incoherent because societies got too big and complex, and thus, he argues, we need to renew the project of seeking out and reflexively reviewing the tacit assumptions (the implicate order) that shape the way society is structuring itself, our identities and our possibilities for agency. He gives primacy to reflexive meaning-making processes that account for, and take account of, the tacit, the implicate order (not only the explicate order, or the more visible).
- Dialogues are consequently experiments in seeking deeper insights, meanings, probing the tacit, the underlying flows of meaning reflected through our words, the questions and relations that constitute what is visible in the everyday or in our thought expressions (i.e., our writings or verbal expressions), in the interests of seeking 'truth'.
- In dialogues everyone is quite free. It is not a 'mob' situation where the collective mind takes over – rather dialogue is something *between* the individual and the collective. It can move between them. It recognises the existence of both an individual and a collective mind, and a flow between them. Cultures are constituted by shared meanings. Bohm raises a question about the coherence of contemporary culture, stating that 'the culture in general is incoherent ...', noting that this brings a corresponding incoherence into culture at a micro-level. In doing this he argues for more careful consideration of what occurs between the individual and the collective.

I have drawn on some of these perspectives to consider some ‘flows of meaning’ that are apparent in the words shared in this journal. My purpose is not to change anything, but to listen, and to see if new possibilities for coherence (not sameness in thinking) occur. In doing this, I am experimenting with seeking deeper insights, meanings, probing some possible underlying questions and relations embedded in the set of papers submitted to the journal. My purpose (which is part of the broader purpose of this journal and the WEEC 2007 process) is to consider the 30-year project of environmental education and social change, as expressed by authors across these journal pages. My interest is to see whether we can (at least to some extent) *at this point in time, share a common content* in the field of environmental education (but not necessarily the same viewpoints, research approaches or thoughts). I frame my dialogical encounters with the papers as dialogues (e.g., Dialogues 1, 2, etc.) and invite readers to continue the dialogue during the World Environmental Education Congress and beyond.

In doing this, I am proposing that we continue to examine the patterns and consequences of our thinking, listen carefully to each other, suspend our own assumptions and ‘positions’ while we listen, seek out the tacit, or the implicate order, and allowing for a freedom of movement between the individual and collective, all the while seek greater coherence (not to be equated with sameness).

Dialogue 1: Complexity in relationships between environment(s) and culture(s)

One of the *flows of meaning* that appear to be explicitly considered by almost all of the authors in this journal is the ‘nature of the beast’ that we are dealing with in environmental education, although all authors express this in slightly different ways. Most authors comment on the complexity of the (environmental/sustainability) issues being dealt with, particularly since the issues intersect complexity in natural systems, and complexity in modern cultural formations and institutional set-ups that we live and work in. For example, Sam Ayonghe and Sani Amawa discuss the problem of depleting water resources in Cameroon, tracing the natural and human-induced factors contributing to this problem, and the cultural and social implications of this issue. They comment on the potential loss of culture, heritage and livelihoods as people are left with little choice but to become environmental refugees as the sharp realities of the interrelated poverty-environmental relations manifest in this context. Arjen Wals talks about the ‘complex and ever-changing relationships between humanity and nature and between people’, while Stephen Stirling draws our attention to the earlier writings of Barry Commoner who simply noted, for example, that ‘everything is related to everything else’. Mario Salomone describes these relations as ‘The complexity of the phenomena of the inextricable culture-nature, human society-environment *continuum* ...’ while Lesley Le Grange and Chris Reddy comment on the changing nature of our understanding of environment over time, drawing attention to the socially constructed (and often politically constituted), contingent nature of these understandings. Bob Jickling cuts to the core of the debate, noting that we ought to give greater attention to normative issues in education, ‘especially in the context of urgent socio-environmental issues such as global climate change and growing inequity between geopolitical regions of the world’. He suggests that to address issues of complexity we might include

‘predilections for contextually developed approaches to normative questions’ (Jickling, this edition).

The Think Pieces by Edgar González-Gaudio and Ian Robottom draw attention to the extreme political edges of human-nature relationships when they critically analyse the influence of an increasingly dominant political-economic-institutional alliance that is underwriting and supporting a primarily economic interpretation of sustainable development discourse which is beginning to marginalise environmental policy and environmental education practice. Peter Blaze Corcoran and Philip Molo Osano, through the medium of the Earth Charter ethics, consider another political edge of this human-nature relationship when they talk of intergenerational equity, in contexts where there is enormous inequality amongst present generations (never mind future generations!), with Bob Jickling’s Think Piece reminding us of yet another political edge, our consideration (or non-consideration) of the more-than-human.

So what is tacit here? What implicate order could become more visible if we were to take the time to engage in the kind of dialogue envisioned by Bohm?

My reading is that as humans we are apparently not (yet) succeeding in articulating our relations with the non-human or more-than-human world in coherent ways. Stephen Stirling, and Bohm himself, traces this to deficient worldviews based on ‘separation, control, manipulation and excessive competition’ (Stirling, this edition), or fragmentary/separatist logic. Could this help us to ask why an apparently incredibly complex array of political, economic and cultural interests (embedded in our thought patterns) are (still) subverting our capability to co-define more clearly our interdependent relationship with the non-human world/space/ecosystems that we inhabit? You may find glimmers of insight in your reading of the papers in this journal, or in the WEEC 2007 presentations ... if you join into the spirit and process of this dialogue ...

Dialogue 2: The slow nature of systemic change in educational systems, thinking and practice

Another *flow of meaning* dealt with explicitly in a number of the papers is the slow response in educational systems, thinking and practice to the contemporary challenges facing society (as expressed in the environment and social justice agendas). Again this is expressed by different authors in different ways. For example, Stephen Stirling (this edition) comments that few of the institutional documents that promote environmental thinking have critiqued the education system that it seeks to influence. He states that 30 years after Tbilisi ‘... the environmental and sustainability movement, with a few exceptions, is still not good at critiquing the context it seeks to influence’. Charles Chikunda, in his empirical study of a teacher education programme, most clearly expresses this point in findings which show that teachers, and their supervisors, are still tied to outdated educational philosophies and theories, a situation which is exacerbated and held in place by structural features such as the examination system and existing (colonially derived) education cultures. His research shows how this legacy lives on in schools, prohibiting

or constraining a re-orientation of education towards sustainability, and excluding parents and communities from having an educative relationship with the learning processes in the school. Mphemelang Kethoilwe's research also points to the difficulties teachers experience when having to adapt to/adopt new environmental education policy without adequate orientation and support, showing how teachers' normalisation strategies are an integral part of the power-knowledge relationships that hold existing educational structures and cultures in place. Lesley Le Grange and Chris Reddy suggest that very little of what has been explored in the academe may have filtered down to schools, and Mario Salomone says that models in schools 'that are based more on *having* rather than *being* lead to a vision of the world that fuels competition, marginalisation, dissatisfaction, etc.' (this edition).

So what is tacit here? What implicate order could become more visible if we were to take the time to engage dialogue on this question?

My reading is an historical one, which I trace back to the purpose of schools in society, their subsequent appropriation by the emerging nation state for purposes of cultural reproduction, their current disarray due to the difficulties in maintaining social order on a massive scale such as that assumed of formal education systems, with a consequent lack of appropriate support and orientation for teachers to make the expected transitions. How can a system, geared primarily towards maintaining a reproductive and social control function in society, be 'set free' to be rapidly responsive to emergent needs of society (e.g., to enabling equity, reducing environmental impacts, etc.)? What implicated order needs to change?

Mario Salomone in his paper (this edition) speaks of engaging with the 'school ecosystem', and Stephen Stirling, Arjen Wals and others talk of thinking more systemically about our working with schools and other learning institutions. In our dialogue we could take the time to consider that the education system (as we know it today) was created through our words and how we think, and that it could be changed if a more coherent vantage point on the value and purpose of education could be developed for the late-modern era (with its attendant diversity, changing culture, emergent reflexivity and other features).

Dialogue 3: Environment and sustainability ... how should we conceptualise the relationships in our field

Fifteen years after the Rio Earth Summit, there seems to be much uncertainty in the field as to how we should conceptualise the relationship between environment and sustainable development thinking. In some cases, authors in the journal appear to have resolved the dilemma by using both environmental education (EE)/education for sustainable development (ESD), others traverse the terrain confidently using the concept of sustainability, while others refer to environment and sustainability as two separate, yet related, concepts, and others consider environmental education to be a vehicle for achieving sustainable development. Edgar González-Gaudio provides an in-depth analysis of the shifting discourse of sustainable development, its origins in the environmental movement, and its more recent appropriation

by the market, marking out a complex, ideologically imbued, shifting terrain. Wals and others refer to sustainable development as a learning *process* (i.e., open-ended and still to be clarified as people come together in co-defining deliberations).

Rob O'Donoghue and Ian Robottom both comment critically on this contested space, by noting that so much of the problem lies in the dialectical politics of naming games at the level of new movements and changing slogans that are not always in the best interests of the environment. To complement this, Edgar González-Gaudiano's genealogical analysis provides a richly textured picture of changing human struggles and conceptions of how best to manage their relations with the environment. It reminds us that environmentalism is a new social movement, of relatively short duration in the bigger scheme of things, and the terrain is still uncertain, unclear and uncharted, although we seem able to detect powerful influences and forces at play that are re-defining the environmental agenda within the current global neo-liberal development 'flow'. Writing from Latin America, González-Gaudiano argues that environmental education's task is to develop capacity for critical and reflexive engagement with the increasingly complex and changing discourses of environment and sustainability (not unlike an argument I made in an earlier paper on the same question (Lotz-Sisitka, 2004), writing from southern Africa). Arjen Wals re-assures us, noting that the conflict and tensions that arise around environment-sustainability issues and discourses in the field are critically important for stimulating learning and agency, an important dimension of the critical reflexivity that González-Gaudiano proposes. These perspectives are not unlike Rob O'Donoghue's emphasis on the way risk encounters and moral imperatives give rise to culturally situated reflexive learning processes.

But what is the implicate order here? What is at the root of the environment–sustainable development debate in the field?

My reading is that human society is trying to re-conceptualise its relations with the environment (evident from the changing discourses over the past 30 years and more). However, as we know from a myriad of critical commentators on the state of modern globalising society, the dominance of neo-liberalism is extremely powerful, unbalanced and unequal, and does not easily allow the space for new social movements to flourish. Through established and taken-for-granted cultures of dialectical and conceptual fragmentation, powerful academic-media-institution matrixes, and individualisation, this trajectory appears to foster division at macro- and micro-levels, which tends to sustain dominant trajectories, through various (often tacitly constituted and paradoxical) appropriations of new social movements and their interests. Thus, critical reflexivity becomes a key resistance strategy and a cornerstone for enabling agency, keeping the possibilities for ongoing re-defining of a field such as environmental education open, responsive, varied and interesting, as Bob Jickling always reminds us to do.

Dialogue 4: Education, learning, identity, politics and reflexivity

Bob Jickling connects with another *flow of meaning* in many of the journal contributions when he comments in his Think Piece that education (and environmental education) ‘is an essentially contested concept that has developed and changed over time’ and that ‘there is a sense that the concept of education has been continually re-created’ (this edition). He suggests that the time is right for re-invigorating the process of re-creating education, and shares some lovely vignettes of how this can be done through creating previously unspoken concepts, or through testing analyses against new information and hard cases. It seems that such a creative moment is taking place in the field of environmental education around considerations of human learning processes.

What seems to be an interesting feature of the papers in this journal is that authors are all working at developing a new language for explaining and talking about human learning, which is significantly different to the earlier language given to us by behavioural and cognitive scientists. Some express it by marking out the shifting terrain towards constructivism. But there is a more interesting trend, emergence of a new language characterised by phrases such as ‘conscious agents of our own cultural evolution’ (Stirling, this edition); ‘reflexively fumbling towards sustainability’ ... ‘require a more systemic and reflexive way of thinking and acting’ ... ‘meaningful interaction’ ... ‘communities of learners’ ... ‘open-ended and transformative’ ... ‘creativity and change’ ... ‘collective goals and/or visions’ ... ‘conflict and dissonance’ (Wals, this edition); ‘thoughtful social action’ ... ‘the problem of agency’ ... ‘relational knowing/learning’ (Hart, this edition); ‘sense of place identity’ (Clement, this edition); ‘sense of place’ ... ‘learns ... to be a participant in a changing world’ ... ‘contributing to cultural change’ (Salomone, this edition); ‘... deliberative meaning-making ... reflexive social learning processes ... planned and undertaken in response to risk within a community of practice’ (O’Donoghue, this edition). Bob Jickling, Rob O’Donoghue and Arjen Wals (amongst others) seem to be proposing that considering and negotiating complexity, risk and unintended outcomes in education is closely intertwined with the deliberation of normative questions (ethical questions), and the emergence of action competence (agency).

Paul Hart, adding a political slant to the language of reflexivity and co-engaged learning processes outlined above, articulates what we seem to be talking about as follows: ‘we need to learn how each of us is complicit politically in constructing subtexts by which our actions are judged to be reasonable. Such learning is not neutral and is contingent on processes of participation that engage people in thoughtful social action’ (this edition). His paper probes the reflexive learning process more deeply, seeking out the relationship between identity construction, learning and reflexive social actions (agency), noting that identity is situated, historical and contemporary and always in flux, an insight which sheds significant insight into the learning processes we seem to be discussing in this journal.

While Paul Hart points to the significance of subjectivity and identity, Lesley Le Grange and Chris Reddy point out that the homogenising and normalising effects of Integrated World Capitalism (after Guattari, 2001) is producing human subjectivities that are ‘domesticated, that is, passive, dull and uninspiring’, leading to a decline in ecological literacy, an issue also lamented

by Mario Salomone in his Think Piece. This would seem to create even deeper challenges for educators anxious to consider the potential of agency for social and environmental change. This is especially so when one considers the point made by Lesley Le Grange and Chris Reddy that ‘learners are exposed to environments that are radically different to the way they were 30 years ago’, characterised by new forms of social organisation and structures, rapid urbanisation, new technologies (e.g., Internet, cell phones) and globalisation of events, consumption patterns, economics, culture and politics. They mark this out territory as being laden with ‘potential carriers of new possibilities’, new ways of living and new forms of agency (this edition). Michael Jackson comments further on this issue, noting that it is not really a question of learning to adapt to these changes, but rather learning how to challenge the *direction* of such change, and that there is a need to visualise an entirely different trajectory and learning theory for developing the courage (and agency) to pursue such a vision effectively. Cecilia Lundholm’s work on students’ encounters with different epistemic cultures provides an interesting empirical vantage point on the more ideologically constituted or theoretically constituted attempts at explaining the learning process shifts, highlighting ‘commitment’ as being an integral dimension of such learning processes.

Joe Heimlich and Martin Storksdieck add another dimension to the discussion on learning as they engage with the issue of broader sites for learning, the intentions of learners and educators in ‘free-choice learning’ processes. Significant is their point that learning does not only take place in school-like settings, which they see as a too-narrow perspective ‘... in a world where lifelong ... learning ... is becoming increasingly more important, and increasingly more recognised’ (this edition).

What is tacit here?

My reading is that learning theorists are seeking deeper explanations for learning, exploring how complexity, risk and ethical questions, prominent in late-modern cultural and socio-ecological contexts can be mobilised through various forms of co-learning to enable generative responses amongst individuals and communities. The institutional borders that previously confined learning to formal institutions are breaking down, and learning sites are becoming more flexible, moveable and are being differently configured to those that characterised the 19th and 20th centuries. This is not, however, all pervasive; as we have noted above in Dialogue 2 schools and some other formal learning institutions (e.g., universities) are still excluding communities, and more generative approaches to learning are confined by institutional form, culture, inequality of opportunity and lack of capacity for rapid adaptation to societal change. The challenge would seem to be how to reconcile progressive and interesting learning theories with existing institutional cultures that pervade education systems and structures. Can our institutions become social learning institutions?

How to Bring It All Together? An invitation to dialogue around some emerging questions

So, how do we begin to bring this together? Is it possible to state that we share *a common content* in the field of environmental education *at this point in time*? From my reading of some of that which seems tacit across a number of these journal papers (expressed in the four dialogues above), I propose that some of the contours of this common content could potentially lie in engaging with the questions:

- How can we more coherently conceptualise nature–culture relations (or our relations with the non-human/more-than-human world) in a context of extreme complexity?
- How can we more coherently engage the current nature of formal education institutions and systems to enhance their contributions, value and possibilities for engaging environment and sustainability questions in the 21st century?
- How can we counteract and transgress fragmenting logic affecting our field, which has led to separations such as environment *versus* sustainability (EE *versus* ESD), and the environment/society/economy division emerging in sustainable development discourse? How do we avoid this form of logic from weakening a field that has developed great integrative strength and insight in a relatively short historical time-space configuration (30 years since Tbilisi)?
- How do we continue the project of engaging people in reflexive learning processes that are ethically constituted in response to risk and inequality, that take account of identity, history, politics, culture and context, *and* that are generative of meaningful alternative ways of living and being? Can we deepen our understandings of agency, its emergence and potential for reflexive encounters? And how do we do this coherently in the context of formal education systems, *as well as* community learning and free-choice learning contexts?

Underpinning the above, is the constant process of reflexively reviewing what is being constituted through the word, what flows of meaning are present, and how changes can be constituted in the implicate order (not only the explicate order), to use Bohm's framing. Stephen Stirling, in his paper (this edition) argues that we need to go

... beyond mounting calls to 'change our way of thinking and doing' (which have been with us before and since Tbilisi) to uncover the roots of why we are as we are, and, from this basis, clarify the nature of a shift of collective consciousness which is already underway, in order to accelerate it further.

This opening Think Piece invites you into such a dialogue, with this journal, its words and flows of meaning, and with the World Environmental Education Congress, its words and flows of meaning. Dialogue, as explained by Bohm, and as illustrated in the thought experiments in this paper, is a process of creatively and experimentally seeking out meaning and coherence through listening, and through deeper explorations of the tacit, implicate order. It is also a free process, where you as individual are invited to seek out the relations between your thoughts and the collective. Welcome to the process ...

Final Note

While this opening Think Piece intended only to consider the contributions in this edition of the EEASA Journal, I could not help but notice similarities with other published works in the field of environmental education – the recent 10-year Special Issue of *Environmental Education Research*, an established journal edited by Alan Reid and Bill Scott (2006), being notable here. This Special Issue also deliberated nature–culture complexities, and the EE/ESD debate in the field of environmental education, learning processes and other themes. Another more recent Special Issue of the *Environmental Education Research* journal edited by Bob Stevenson (2007) deliberates similar questions to those raised here about change in formal education systems. The indications are therefore that the dialogue here has a reach far beyond the words in this journal.

Notes on the Contributor

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